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EXAMINER	
HARWARD, SOREN T	

ART UNIT	PAPER NUMBER
4131	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/587,904	DADALA ET AL.	
	Examiner	Art Unit	
	SOREN HARWARD	4131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 July 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-85* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-85* is/are rejected.

7)☒ Claim(s) *1-85* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 July 2006* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *20070911*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☒ Other: *Search Notes*.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 11 September 2007 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement has been considered in full by the examiner. A copy of the IDS signed by the examiner is being attached to this Office action.

Drawings

2. The drawings are not of sufficient quality to permit examination. The line drawings contain letters and lines which are too light to permit adequate reproduction, and shaded areas are so dark that their features are obscured and indistinguishable. Accordingly, replacement drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to this Office action. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action.

Applicant is given a TWO MONTH time period to submit new drawings in compliance with 37 CFR 1.81. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a). Failure to timely submit replacement drawing sheets will result in ABANDONMENT of the application.

Specification

3. The abstract of the disclosure does not commence on a separate sheet in accordance with 37 CFR 1.52(b)(4). A new abstract of the disclosure is required and must be presented on a separate sheet, **apart from any other text**. Though it contains the text of the abstract, a reproduction of the first page of the PCT application is not an acceptable format for the abstract of a U.S. application.

4. 35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification is replete with language which is not clear, concise and exact, and contains innumerable violations of standard English grammar and usage. The specification should be revised carefully in order to comply with 35 U.S.C. 112, first paragraph.

Claim Objections

5. Claims 1–83 are objected to because of pervasive errors in standard English grammar and usage. Given the extent of the language errors in the entire disclosure, Applicant is encouraged to revise the disclosure under the direction of an editor with experience preparing technical documents in the English language.

6. Claims 3, 5, 32, 34, and 61–83 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claims, or amend the claims to place the claims in proper dependent form, or rewrite the claims in independent form. Claim 3 recites a structure of a data processor, but does not state how that processor is related to the method of claim 1. Claims 5 and 34 merely recite a possible use of claim 1 (the parent claim), but do not place any additional limitations on the method. Claim 32 describes the data operated on by the method, but does not limit the method itself. Claims 61–83 recite limitations of a data processor that is supposedly related to the method, and consequently do not limit the method itself.

7. Claims 53 and 54 are objected to for depending on claims which succeed them in the claim order; i.e., they have lower claim numbers than the claims on which they depend. However, it appears that this abnormality is a typographical error, rather than a case of irregular claim numbering. Since claims 53 and 54 are directed to data processors, and claims 78 and 80 are directed to methods of chemical analysis, claims 53 and 54 will hereinafter be interpreted as being dependents of claim 52.

8. Appropriate correction is required.

Claim Rejections - 35 USC § 112, First Paragraph

9. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

10. Claims 1–83 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims.

11. Claim 1 is directed to a method of determining the chemical constituents of natural or synthetic compositions; the other independent claims (52 and 84) are directed to devices which implement this method. The method culminates in the step of "interpreting the 3-D static and animated data graphs to predict the therapeutic properties of the analyte sample." The specification describes in substantial detail the characteristics which affect chromatographic separation (e.g. p. 19, items ii.–iv.), and characteristics of how the chromatographic data may be presented (e.g. p. 19 items iv.–vii.). However, the specification does not adequately explain the relationship between the data presented in the graph and how it relates to the chemical and

therapeutic properties of a compound or composition, nor how one of ordinary skill in the art may make such a determination without extensive experimentation.

12. In a best-case scenario, the composition being analyzed is a simple composition of well-characterized compounds whose physical and therapeutic properties are well known; e.g., ibuprofen in a single pharmaceutically inert carrier. In this case, identifying the compounds present, and determining their therapeutic functions, is straightforward because the retention times and detected spectra can be compared to known compounds under similar conditions.

13. However, the scope of the claims, and indeed the intended use of the invention, encompasses compositions derived from natural sources that are likely to be complicated mixtures of dozens, if not hundreds, of compounds, for which neither the chemical properties nor the therapeutic properties may be well known. Simply graphing the chromatographic data is insufficient to tell one of ordinary skill in the art anything other than the most rudimentary chemical characteristics, such as relative polarity or approximate molecular weight (depending on the chromatographic column used) or functional groups present in the molecule (from the absorbance spectrum). More extensive characterization is necessary just to determine the components of an unknown mixture and the chemical structures of its compound; see, for example, Exarchou, *et al.* ("LC-UV-Solid-Phase Extraction-NMR-MS Combined with a Cryogenic Flow Probe and Its Application to the Identification of Compounds Present in Greek Oregano"), in which data from liquid chromatography, UV absorbance, tandem mass spectroscopy, and 2D HMQC NMR were combined to determine the structures of just six major components of Greek oregano, all of which were compounds previously known in the art. Determining therapeutic properties of natural products poses a substantial set of challenges itself, even when the structure of the compound of interest is already known (e.g. Butler, *et al.*; "The Role of Natural Product Chemistry in Drug Discovery").

14. The difficulty in determining the chemical and therapeutic properties of the composition is compounded by the imprecise and cryptic description of a chromatographic fingerprinting method, which apparently is intended to aid with identification of chemical and therapeutic properties. The description of the fingerprinting method in the specification (pp. 91–96) indicates that matching 3D coordinates (the source of these coordinates is unclear) “will provide a foolproof method of comparison and analysis” (p. 94, line 5). The relationship between the 3D chromatogram, the 3D coordinates, and the fingerprint is not described precisely, but techniques for fingerprinting chemical based on their structures or properties are known in the art (e.g. Willett, *et al.*, "Chemical Similarity Searching"). However, the specification suggests that the fingerprints are not based on chemical structure and properties, but instead are based on images (e.g. p. 92, lines 1–3; p. 94, line 16). Image fingerprinting is also known in the art (e.g. Seo, *et al.*, “A robust image fingerprinting system using the Radon transform”). Given the divergence between the chemical fingerprinting and image fingerprinting arts (compare the methods of Willett and Seo), a person of ordinary skill in one art will likely recognize only the general features of the other.

15. For the fingerprint to be meaningful for chemical and therapeutic property determination, it would either have to embody information that explicitly described the chemical and therapeutic properties of the compound (such as an IR absorbance peak at 1700 cm^{-1}, indicating the presence of a carbonyl bond), or it would have to embody information that indirectly described the chemical and therapeutic properties of the compound in terms of its similarity to other compounds with known properties (such as “this compound is similar to adenine and guanine, and different from glucose and retinoic acid"); in the context of multimedia fingerprinting, Seo calls this latter type of fingerprint a perceptual fingerprint (p. 328, bottom of column 1). Given that the chromatogram itself is unlikely to contain sufficient information to permit chemical and

therapeutic characterization, a fingerprint derived from that data is unlikely to contain that information either, especially since fingerprints inherently have lower information content than the datasets from which they are derived. And the specification does not provide sufficient detail for creating a perceptual fingerprint, be it based on chemical structure and properties or an image, that can be used for any kind of meaningful comparison between types of chemicals. So in either case, simply creating a fingerprint from the compound or composition will not permit determination of the chemical or therapeutic properties of that compound or composition; in the case of this invention, it only compounds the problem because no intelligible fingerprinting algorithm has been taught.

16. Given that the chemical and therapeutic properties of the compound or composition cannot be ascertained in any straightforward manner from the results of the method claimed (except in the most rudimentary and uninformative cases), a person of ordinary skill in the art would be faced with an undue burden of experimentation when trying to use the method for its intended purpose.

Claim Rejections - 35 USC § 112, Second Paragraph

17. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

18. Claims 1, 2, 4, 9, 10, 12, 14–18, 20–22, 25, 26, 28, 30, 31, 33–35, 37, 39–47, 51–53, 56–59 and 63 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

19. Claims 1, 52, 53, and 63 contain parenthetical phrases. It is not clear whether these phrases describe terms already clearly specified in the claims (in which case they are superfluous and should be removed), or whether they provide additional necessary limitations on the claims (in which case they should be integrated into the claim).

20. In claims 1, 4, 9, 14–18, 20–22, 26, 28, 30, 31, 34, 40, 42, 43, 45, 51, 58 the result of the method is “chemical and therapeutic standardization". However, no standards are described in the specification, so it is unclear how the "standardization" should be performed. Should it include metrics of purity? Should it include weights, volumes, or molarities? Does it mean identification of unknown compounds?

21. In claim 1, the extracts “possess[] … medicinal values”; no clear criteria are provided for determining what constitutes a medicinal value, nor for determining *a priori* whether an extract possesses medicinal values.

22. In claim 1, it is unclear whether the entire chromatogram or only the axes should be divided into 27 zones.

23. Claim 1, step b analyzes static and animated data graphs, but there is no step which generates static data graphs.

24. In claims 2 and 10, it is unclear what is “under the influence of physico chemical properties”. Is it the analyte? The chemically surrounding constituents? The separation method itself?

25. In claims 4 and 9, it is unclear how the “atoms/molecules” should be arranged using both the polarity and the conjugative property criteria. It is similarly unclear whether the “atoms/molecules” themselves are arranged, or whether the data obtained from them is arranged. Claims 20, 21, 22, 30, 31, 34, 35, and 58 also refer to ordered separation with similar deficiencies in the definition of ordering.

26. In claim 12, there is insufficient antecedent basis for the term “colored image”. Claims 37 and 38 also recite color analysis, also without appropriate antecedent basis.

27. In claims 12, 37, 39, it is unclear how the pixels in the z-axis of a 2D image (as generated in claim 1) could be analyzed, since a 2D image does not have a z-axis.

28. Claims 12 and 37 recite the limitation of a “detector which can measure the energy absorbed or emitted" from an unspecified source. Furthermore, even though detectors for electromagnetic energies or radiation are commonly known in the art, the specification suggests other types of energies pertinent to the invention (such as “bio energy” on p. 15 line 29; “Tri dosha energy” on p. 31, line 1) for which detectors are not known in the art.

29. Claim 14 specifies that the interpretation identify the compounds “by the absorptive and emission properties of various constituents of the image”; it is unclear to what this process refers, because images themselves do not have absorptive or emissive properties.

30. Claim 14 also specifies that the properties be related to “a specific efficacy” in one or more chemical or biological pathways. The parameters for determining this efficacy are not undefined.

31. Claim 16 results in data being arranged “in specific data base folders”. Insufficient structure for this limitation is recited in the claim.

32. Claims 25 and 26 refer to "standard analytical parameters", presumably for liquid chromatography. Given the range of applications of liquid chromatography and the conditions under which such analyses are preformed, the term "standard" without further explanation is meaningless in this context.

33. Claims 33, 46 are directed to liquid eluents for chromatography. However, not all chromatographic processes use liquid eluents (e.g. gas chromatography), and claim 1 is directed to chromatography in general.

34. Claims 41, 44, 52, 56 contain the limitation of “a static and animated data chromatogram”. The terms “static” and “animated” are mutually exclusive in this context, so it is unclear how one chromatogram could possess both properties.

35. Claim 47, 56, 57 specify that the data graph be divided into therapeutic zones with no definition regarding the zones or the therapeutic criteria which would define them.

36. In claim 59, the term “inter and intra correlations of molecules” is undefined.

Claim Rejections - 35 USC § 101

37. Claims 1, 5–8, 10–14, 17–19, 21–24, 27–34, 36, 38–40, 42–45, 47, and 57–60 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. As established by the U.S. Supreme Court (see Benson, 409 U.S. 63; Diehr, 450 U.S. 175), and in accord with the decision in *In re Bilski* (545 F.3d 943, 88 USPQ2d 1385 (Federal Circuit, 2008)), a claim to a process or method must meet one of two requirements to be eligible under 35 U.S.C. 101 as statutory subject matter. Either the critical steps of the method must be tied to a particular machine or apparatus, or the method must transform a particular physical article into another state or thing. In other words, the prohibition on patenting abstract ideas has two distinct aspects: (1) when an abstract concept has no claimed practical application, it is not patentable; (2) while an abstract concept may have a practical application, a claim reciting an algorithm or abstract idea can state statutory subject matter if and only if it is embodied in, operates on, transforms, or otherwise is tied to another class of statutory subject matter under 35 U.S.C. 101 (i.e., a machine, manufacture, or composition of matter).

38. These claims are directed to a method of directed to a method of determining the chemical constituents of natural or synthetic compositions. The method does not perform a real-world transformation of any physical article; it transforms only data (i.e., mathematical abstractions) related to chemical compounds and compositions. Even though the data are derived from physical matter, and the step of acquiring the data is implicit in the practice of the method, inclusion of data-gathering steps do not render a method statutory (see Bilski, 1397). The claims also recite a series of calculations, but do not tie the method steps that are critical to the practice of the invention to any particular machine or apparatus. Even though carrying out such calculations by hand would be laborious and prone to error, the claim language does not

preclude this possibility. The instant claims thus fail both parts of the eligibility test, and are therefore non-statutory.

39. Claims 84 and 85 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. These claims are directed to a "tool" for performing a method of data analysis. The limitations of "tool" are defined neither in the claims nor in the specification, and according to the definition of the term as commonly understood in the art of scientific data analysis, the term encompasses embodiments of the invention which are purely software. Software, per se, is not statutory subject matter (see MPEP 2106 and Nuijten 84 USPQ 2d 1945).

Claim Rejections - 35 USC § 103

40. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

41. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

42. Claims 1–83 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tilton, *et al.* (WO 2003/037250), in further view of Molnar ("Computerized design of separation strategies

by reversed-phase liquid chromatography: development of DryLab software") and Karjalainen, *et al.* ("Spectrum Extraction from Hyphenated Data (CD-ROM)").

43. The serious problems with clarity and distinctness in the claims prevent a detailed comparison of the invention with the prior art. These general features of the invention are evident:

a. chromatographic separation of chemical compositions (clms 1, 17, 20, 32), which may take into account properties relevant to the chromatographic process (clms 2, 10, 15, 16, 18, 24, 25, 26, 27, 28, 29, 33, 40, 46, 48, 49, 51, 58)

b. multidimensional analysis of the separated components (clms 1), including emission or absorption spectra (clms 1, 4, 22, 23, 36–39, 50, 55)

c. plotting the data in two or three dimensions (clms 1, 6–8, 11, 12, 37, 41, 44), the axes of which are divided into regions (clms 1, 13, 47, 57, 60–82), and possibly sorted by some characteristic (clms 1, 6, 9, 21, 22, 35, 59), the plots possibly being animated (clms 1, 3, 56, 83)

d. rendering the plot in such a manner that it can be rotated around the axes (clms 1, 11, 29, 30, 31, 83)

e. using the rendered plots to identify chemical or therapeutic properties of the compounds (clms 1, 3, 5, 6, 11, 12, 14, 19, 32, 34, 42, 43, 55, 56, 57)

f. possibly generating a chromatographic fingerprint (clms 1, 3, 26, 45, 56)

g. possibly generating a barcode related to the data (clm 16)

Claims 52–54 are directed to a data processor which implements many of these features, which is evidently equivalent to a general-purpose computer which has been programmed with software to perform the method.

44. Tilton teaches

> computational methodologies for improving the selection, testing, quality control, and manufacture of herbal compositions, and to help guide the development of new herbal compositions and identify novel uses of existing herbal compositions. More specifically, this invention relates to a process of encoding two or more biological and/or chemical data into a matrix fingerprint, and the statistical/probabilistic manipulation of such matrix fingerprints for the testing and improvement of herbal compositions. (Abstract)

Tilton also teaches chromatographic separation (0013, 0017, 0018, 0031), and plotting of chromatograms in 3D (figure 1) which have been binned into discrete values (equivalent to the regions of the claimed inventions). Interactive rotation in a 3D plot is an old and well-known feature of scientific plotting software (see gnuplot p. 14, § 4.1) because it greatly improves interpretation of the data, so providing it in software would have been an obvious modification made by anyone skilled in the art at the time of invention. Tilden does not teach animated chromatograms.

45. Molnar (p. 190 § 20) and Karjalainen both teach animated chromatograms. One skilled in the art at the time of invention would have been motivated to improve the analytical method of Tilton with the animated visual presentation taught by Molnar and Karajalainen, because both these sources teach that animation adds an extra dimension of visual analysis which allows time series of data to be understood more easily. Said practitioner would have reasonably predicted that the combined method would perform as predicted, because combining the two methods requires only a modification to existing computer software, and does not yield any unanticipated results. The invention is therefore *prima facie* obvious.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting

rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

46. Claims 1–83 are rejected on the ground of nonstatutory double patenting over claims 1–16 of U. S. Patent No. 7,144,740 since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows: both sets of claims are directed to a method of determining the chemical constituents of natural or synthetic compositions, using similar methods of chromatographic separation, rendering the chromatograms three dimensionally or as barcodes, and determining the similarity between chemicals based on the similarity of the chromatographic images. The sole apparent

difference between the claims of U.S. Patent Nr. 7,144,740 and the claims in this application appears to be that the claims in this application are also directed to animated chromatograms, which, for reasons explained above, do not constitute a patentable difference over the prior art. See particularly Table 26 on page 206 of the specification, which compares this application to PCT application PCT/IN00/00123[1]. The two stated differences between this application and PCT/IN00/00123 are the animated data graph (items 1, 3), and the "data availability" (item 2); differences in data operated on by the method cannot impart a patentable difference between the inventions. Thus, there is not a patentable difference between the subject matter claimed in this application and the subject matter claimed in U.S. Patent Nr. 7,144,740.

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Conclusion

47. No claim is allowed.

48. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ito, *et al.* (US 5,644,503) and Benight, *et al.* (US 2002/0169561) are both directed to analysis of multidimensional chromatographic data.

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[1] Patent Nr. 7,144,740 issued from U.S. Application Nr. 09/779377, which is not a national stage entry of PCT/IN00/00123, but the two applications are substantial duplicates of each other. The reason for the break in continuity is unknown.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SOREN HARWARD whose telephone number is (571)270-1324. The examiner can normally be reached on Mon-Thu 9:00-18:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JAMES O. WILSON can be reached on (571)272-0334. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Soren Harward/
Examiner, Art Unit 4131

/James O. Wilson/
Supervisory Patent Examiner, Art Unit 1624